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ARIZONA STATE UNIVERSITY ■ COLLEGE OF BUSINESS
CENTER FOR BUSINESS RESEARCH

Survey Reveals Recent Homebuyers' Preferences

Homebuyers are purchasing homes with more amenities and are obtaining most of the items they desire in a home. High quality construction and the quality of the neighborhood/area are the most important considerations for most buyers, and the majority enhance their newly acquired home by upgrading or personalizing its interior.

These are only a few of the findings which resulted from a survey conducted by the Arizona Real Estate Center examining the housing preferences of recent homebuyers. The 405 respondents to the AREC Survey had purchased their homes between August 1987 and July 1988 and answered questions about the type of home they bought as well as the features they sought and additional items they had purchased for it.

IMPORTANT HOUSING CHARACTERISTICS

The quality of the area ranked highest as an important or very important consideration when selecting the home (82 percent of respondents), followed closely by the desire to own a home rather than rent (81 percent). Other important factors included all the "money" variables: price (70 percent), investment value (66 percent), the financing plan (54 percent) and the monthly payment (51 percent). However, compared to the previous year, all the monetary variables fell in importance while the quality of the area and the desire to own a home increased in importance. The factors considered least important were the builder's reputation (28 percent), higher status associated with a move-up home or neighborhood (21 percent), and the proximity to friends and relatives (17 percent). Some housing characteristics varied in importance by the purchaser's housing type. For example, buyers of new homes, both single-family and townhouse/condominium, considered the investment value, the reputation of the builder, energy saving features and warranties to be more important than did resale purchasers (see Table 3, page 4).

Single-family (SF) buyers placed greater importance on amenities. They also considered a larger home and the school district to be more valuable, primarily since they had more children than townhome buyers. New SF buyers also considered the status of the neighborhood, energy saving features, warranties and the builder's reputation to be more important than did buyers of other housing types; they were less concerned about the distance to work. On the other hand, the number of bedrooms were more important to resale SF buyers.

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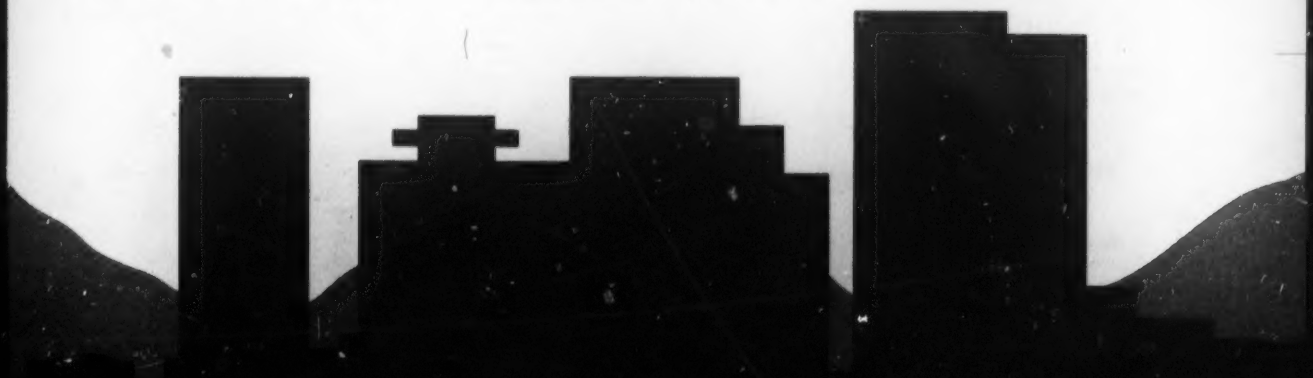

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Townhouse/condominium (TH/C) buyers had the greatest desire to own rather than rent and they were more interested in the financing plan. New TH/C purchasers were also concerned about the possibility of future price increases, but less so about the distance to work. Table 1 shows the significance of the home purchase factors, by housing type, in order of importance to respondents to the study.

IMPORTANT PHYSICAL CHARACTERISTICS

The most desired physical feature in all housing categories was high quality construction (98 percent), followed by a convenient floorplan and design (97 percent) and ample storage space (97 percent). Other important features included a light, open, spacious feeling (94 percent), a large master bedroom (92 percent), a large, modern kitchen (90 percent) and an enclosed garage (86 percent).

The desirability of many features varied by housing type. Single-family buyers had the greatest desire for a home with a light, open, spacious feeling, a fence and a large lot size. Buyers of townhomes had greater interest in purchasing a home equipped with a refrigerator.

New home buyers placed greater importance on a modern kitchen, a large master bedroom, an enclosed garage and a large bathroom. New SF buyers had the greatest desire for an enclosed garage, a formal dining room and a fireplace. New TH/C purchasers had the greatest desire for a guest bedroom or den, and were most likely to purchase a home with that feature.

Resale homebuyers placed the highest value on a solar hot water system. Purchasers of resale SF homes had the greatest desire for one bedroom per household member, while those buying a resale TH/C most often wanted common recreational facilities.

Homeowners received most features they believed important, and buyers of new homes obtained their desired features most often. However, significant gaps occurred for some features between the number of buyers who desired the item and the proportion who received it. Ninety-seven percent of all buyers felt ample storage space was important, though only 79 percent said they obtained ample space; the largest gap occurred among new SF purchasers. Differences of at least 15 percent occurred for two other features: a large, modern kitchen and a solar hot water system. More buyers received one bedroom per household member than those who said it was important.

ITEMS PURCHASED FOR THE HOME

Whether the home was new or previously owned, many new owners purchase additional items to express their personal lifestyle. New SF buyers purchased drapes most often (80 percent), followed by landscaping (65 percent). An additional 15 percent plan to purchase landscaping within the next six months, while 12 percent expect to buy a swimming pool. Table 2 lists many items purchased for the home, including the median price of the purchases.

A smaller proportion of resale SF buyers purchased all items except interior paint, renovations, carpet and a used car. The most common purchases were interior paint (43 percent), refrigerators (39 percent) and drapes (37 percent). Many of these buyers plan to purchase items for their home within the next six months. Nineteen percent expect to buy landscaping; other popular expected purchases include paint (both interior and exterior), drapes, carpet, living room furniture and appliances. Resale TH/C buyers were most apt to purchase interior paint, drapes, refrigerators and renovations. New TH/C buyers most often purchased drapes and living room furniture.

More buyers in all categories bought a new car (15 percent) than a used one (9 percent). However, the median price of new cars purchased by new SF buyers ($13,500) was lower than that of cars purchased by resale SF buyers ($16,745). The median price of resale cars bought by new SF buyers was $7,500, while resale SF buyers spent $6,450.

THE SEARCH PROCESS

Buyers actively looked for the homes they purchased for relatively short periods of time; 65 percent of all buyers searched for their homes for three months or less. Resale TH/C buyers spent the shortest amount of time searching for their homes; 77 percent spent three months or less. Purchasers of single-family homes looked longest; only 58 percent searched three months or less, while 16 percent looked for more than one year.

Buyers of new homes purchased them farther away from their previous residence than resale homebuy-

TABLE 1
IMPORTANT PHYSICAL HOME PURCHASE FACTORS

	New Single-family	Resale Single-family	New TH/ Condo	Resale TH/ Condo
High Quality Construction	99%	99%	100%	96%
Convenient Floorplan/Design	99	96	100	100
Ample Storage Space	94	98	100	98
Light, Open, Spacious Feeling	97	94	90	90
Large Master Bedroom	96	90	100	92
Large Modern Kitchen	96	89	95	79
Enclosed Garage	97	94	83	75
Fence	83	90	55	75
Guest Bedroom/Den	77	82	90	73
One Bedroom Per Household Member	73	82	74	82
Large Lot Size	67	80	21	32
Large Bathroom with Double Vanity	81	81	74	45
Formal Dining Room	58	47	48	33
Fireplace	63	53	50	44
Swimming Pool	40	54	58	48
Refrigerator	34	49	58	64
Common Recreational Facilities	43	38	56	73
Solar Hot Water System	19	39	16	25

Source: Survey conducted by the Arizona Real Estate Center, College of Business, Arizona State University.

ers. Almost one-third of the new SF homebuyers moved more than 10 miles when they purchased their home; 56 percent moved six miles or more. Only 16 percent of the resale SF owners moved more than 10 miles, and 41 percent moved six miles or more. Fifty percent of the new TH/C buyers moved 6 or more miles, while only 30 percent of the resale TH/C purchasers moved the same distance.

Almost all buyers became aware of their home through a real estate agent (40 percent), by driving by the home (29 percent), or through friends or relatives (13 percent). Ten percent credited a newspaper ad, while only 2 percent or fewer credited billboards or magazine ads.

Even though 83 percent of the resale SF and 79 percent of the resale TH/C buyers purchased their homes with the assistance of a real estate agent, only 56 percent and 46 percent, respectively, originally became aware of the home through the agent.

BUYER PROFILE

The typical respondent was married (73 percent) and had some college education; 60 percent had no children. The median age was 35-39 years, though TH/C buyers were older. The median income was $40,000-$49,000—only the lower income of the resale townhome buyers differed. Table 4 shows buyer characteristics for all housing types.

The typical homebuyer purchased a three-bedroom, two-bath, previously owned single-family home. The median price of all homes purchased was $87,500, and the median size was 1,700 square feet.

The typical respondent financed his/her home through a mortgage company, and obtained a 30-year, fixed-rate mortgage of 9.5 percent, with 10 percent down. New SF buyers were most likely to obtain an adjustable-rate mortgage (42 percent), while resale TH/C purchasers were least likely (16 percent). The median interest rate for resale homebuyers of both types was 10 percent, while new buyers enjoyed lower rates of 9.3 percent for SF purchasers and 9.5 percent for TH/C buyers.

The majority of the married households reported dual incomes (56 percent), and the proportion of families with dual incomes was larger among younger respondents. They were most common in new single-family homes (65 percent) and least common in new townhouses/condominiums (33 percent). Half of all townhome buyers were retired. Dual incomes are still quite important since almost half of the respondents believed they purchased the most expensive home they could afford, with a payment equaling 25 percent of their household income.

LENGTH OF RESIDENCE

Almost half of the survey's respondents have lived in the Phoenix area for more than five years (32 percent for more than 10 years). Resale TH/C buyers have lived in the Valley longer than the other groups while new TH/C purchasers have been here the shortest period of time.

Fifty-eight percent of all respondents plan to live in the Valley for more than 10 years (37 percent for the rest of their lives). TH/C owners plan to remain in the area for the longest time. Sixty-nine percent of the new TH/C buyers plan to spend the rest of their lives here and 79 percent of the resale purchasers plan to stay in the Phoenix area for more than 10 years (see Table 5).

Almost half of all respondents plan to live in their recently purchased home for five years or less, and 72 percent expect to move to another residence within 10 years. Approximately three-fourths of all SF buyers plan to live in their home for less than 10 years, while 40 percent of new TH/C and 28 percent of resale TH/C owners plan to spend the rest of their lives in their homes (see Table 6).

TABLE 2
ITEMS PURCHASED FOR HOME AND MEDIAN AMOUNT SPENT

	All Respondents		New Single-family		Resale Single-family	
	Percent	Amount	Percent	Amount	Percent	Amount
Drapes	51*	$700	80	$1,200	37*	$300
Refrigerator	42	800	52	800	39	700
Washer	35	400	44	400	32	400
Landscaping	34*	1,300	65*	2,000	20*	500
Dryer	34	329	43	350	30	300
Interior Paint	29	200	9	200	43	200
Living Room Furniture	27*	1,500	29*	2,000	27*	1,000
Renovations	27	1,000	22	1,007	32*	975
Bedroom Furniture	26	1,000	26	1,500	28	600
Sprinkler System	22*	500	50*	500	6*	200
Family Room Furniture	21	1,200	27	1,400	16	1,000
Television	19	500	22	500	18	475
Microwave	18	277	22	280	16	290
Carpet	17	2,000	14	2,500	20*	1,500
New Car	15	15,000	18	13,500	13	16,745
Pool	10	12,000	24*	12,400	4	10,000
Used Car	8	6,750	8	7,500	12	6,450
Exterior Paint	7	200	—	—	13*	200

*Ten percent or more of respondents plan to purchase this item within six months.

Source: Survey conducted by the Arizona Real Estate Center, College of Business, Arizona State University.

Even though most of the respondents have lived in the Phoenix area for at least five years, almost 90 percent moved from another state. The most common states of previous residence were California, Illinois, Ohio, Colorado and Michigan. A larger proportion of single-family purchasers moved from California, while more TH/C buyers migrated from Eastern states.

The most common reasons for moving to Arizona included climate (52 percent), employment (40 percent), and quality of life (35 percent). When asked to choose the single most important reason, employment, job transfers, and climate were listed most often.

PREVIOUS RESIDENCES

The typical previous residence for all housing types was a previously owned single-family home. The median price of the previous residence was typically higher than that of the recently purchased home. Resale townhouse buyers most often had previously rented (49 percent), while 65 percent of new SF and TH/C buyers had owned their previous residence.

Homebuyers who had owned their previous homes sold them for a median price of $93,000 and had lived in them approximately five years. They then purchased the surveyed home for a median price of $87,500. The price drop shows the impact of retirees purchasing lower-priced homes as well as the higher affordability of Phoenix area homes when compared to many other states.

Even though the desires and purchases of the respondents varied by housing type, they were typically satisfied with their new homes.

– **Sharla Kivett,** *Research Analyst*
Arizona Real Estate Center

Complete Report Available

This article summarizes a more detailed report on the survey of recent homebuyers in the Phoenix area. Copies of the complete report, which includes additional tables of responses by housing type as well as comparisons to similar surveys conducted in the past, may be obtained by calling or writing the Arizona Real Estate Center, College of Business, Arizona State University, Tempe, AZ 85287; (602) 965-5440.

TABLE 3
IMPORTANCE OF FACTORS TO HOME PURCHASE DECISION

	New Single-family	Resale Single-family	New TH/Condo	Resale TH/Condo
Quality of Area	89%	80%	79%	71%
Desire to Own	77	82	88	84
Price	73	82	85	81
Investment Value	81	80	71	48
Financing Plan	54	54	67	46
Monthly Payment	50	53	47	45
Number of Bedrooms	47	56	40	33
Energy-Saving Features	51	38	71	26
Amenities	45	42	25	26
Distance to Work	33	43	13	46
School District	34	39	13	12
To Avoid Higher Prices in Future	26	26	44	39
Warranties	42	25	53	17
Builder Reputation	49	19	41	8
Status	26	19	17	16
Proximity to Friends/ Relatives	16	17	21	20

TABLE 4
CHARACTERISTICS OF HOMEBUYERS AND HOMES
(Median Figures)

	Age of Buyer	Household Income	Sales Price	Square Footage	Year Built
All Respondents	35-39	$40,000-49,000	$87,500	1,650	1982
Single-family - New	35-39	40,000-49,000	104,075	1,900	1987
Single-family - Resale	35-39	40,000-49,000	85,500	1,720	1975
TH/Condo - New	50-54	40,000-49,000	70,000	1,250	1987
TH/Condo - Resale	50-54	30,000-39,000	57,000	1,200	1979

TABLE 5
EXPECTED LENGTH OF RESIDENCE IN METROPOLITAN PHOENIX

Number of years	New Single-family	Resale Single-family	New TH/Condo	Resale TH/Condo
1-5	17%	29%	—	10%
6-10	23	20	15%	13
11-15	4	4	—	10
16-20	9	8	8	13
More than 20	9	8	8	3
Lifetime	38	31	69	53

TABLE 6
EXPECTED LENGTH OF RESIDENCE IN NEWLY PURCHASED HOME

Number of years	New Single-family	Resale Single-family	New TH/Condo	Resale TH/Condo
1-5	41%	46%	33%	49%
6-10	32	31	20	12
11-15	4	4	—	2
16-20	4	7	—	7
More than 20	3	4	7	2
Lifetime	16	9	40	26

Source (Tables 3, 4, 5 and 6): Survey conducted by the Arizona Real Estate Center, College of Business, Arizona State University.

Net In-Migration Rebounds, But Still Sluggish in Third Quarter

Net in-migration to the Phoenix area was a weak 5,000 persons during third quarter 1988, less than one-half the quarterly average between 1970 and 1987. The third quarter figure returned to the 5,000 to 8,000 range experienced between second quarter 1987 and first quarter 1988, up from a very low 1,000 persons during second quarter 1988.

The second quarter's figure was an aberration, resulting from an unusual but temporary increase in outmigration. During the third quarter, laid-off workers stayed in the state rather than leaving as they did during the second quarter, pushing the unemployment rate higher.

The Phoenix area population was approximately 2,024,000 at the end of third quarter 1988, up 11,000 from the second quarter and 40,000 from third quarter 1987. Net natural increase provided more than one-half of the gain; net in-migration totaled only 18,000 persons during the year ending third quarter 1988. Since the late 1960s smaller annual migration figures were recorded only during the depths of the 1975 and 1982 recessions.

Statewide, the population was approximately 3,492,000 at the end of the third quarter, up 16,000 during the quarter and 65,000 in the year ending September 30, 1988.

Some believe that the population gains estimated by the Center for Business Research during the last couple of years are too low. If this were true, the economic statistics would look even weaker. For example, real per capita retail sales in Maricopa County declined during the last two fiscal years, by rates approaching the decrease experienced during the 1981-82 recession, a phenomenon that has mystified many analysts. If greater population growth is assumed, the episode becomes even more difficult to explain.

The outlook for net in-migration in the next few quarters is not promising. Research currently under way clearly shows that net in-migration lags employment growth by approximately two quarters. The relationship is strongest with construction employment, which has a three to four quarter lead. Construction employment continued to decline during third quarter 1988; overall employment growth was very weak. Thus, substantial improvement in net in-migration is highly unlikely before second half 1989, though the quarterly figure may drift higher within the 5,000 to 8,000 range.

Even after mid-1989, the chance for noticeable gains in net in-migration is slim. A recovery in the construction industry must first occur. But such a recovery is unlikely as long as vacancy rates, which have not yet begun to decline, remain high. The threats of higher interest rates and a possible national recession represent additional risks to the outlook.

– Tom R. Rex
Research Manager

GSP Growth Revised Down

The Arizona Gross State Product (GSP) expanded less rapidly during 1986 and 1987 than previously reported. The real increase in adjusted GSP (which excludes the volatile mining and agriculture industries) was 6.8 percent in 1986, down from the earlier estimate of 7.3 percent; but still above the long-term average of 5.7 percent. However, the downward revision for 1987 was from 3.9 to 2.3 percent, far below the national growth rate.

The revision resulted first from new personal income figures for 1985-88, which had the effect of slightly raising current dollar GSP growth in 1985 and 1986, but lowering it for 1987. In addition, the deflators were revised back to 1983, lifting real growth rates slightly during the 1983-85 boom, but reducing growth rates in 1986 and 1987.

Weak growth continued through the first half of 1988, with the annual increase through second quarter 1988 totaling only 1.7 percent. As seen in Table 1, seasonal problems remain in data used to compute GSP. After three consecutive years in which growth during the first quarter was estimated to be much higher than in any other quarter, declines were measured in the first quarters of 1987 and 1988.

Economic growth — measured by gross product — has been slower in Arizona than in the nation as a whole since early 1987, a relationship usually reserved only for the depths of a recession. During 1988, employment gains in Arizona also have been well below the national average; during 1987, output per Arizona employee declined.

The gross products of three Arizona industries — construction, FIRE (finance, insurance and real estate) and government — declined in the year ending second quarter 1988. Growth was rapid in the manufacturing industry, though it was accomplished mostly by productivity rather than employment gains.

– Tom R. Rex
Research Manager

TABLE 1
REAL ECONOMIC GROWTH

	Quarterly Percent Change			Annual Percent Change		
		Adjusted			Adjusted	
	GSP	GSP	GNP	GSP	GSP	GNP
1st Quarter 1987	–0.8	–1.6	1.1	1.1	1.3	1.5
2nd Quarter 1987	1.4	1.6	1.2	2.6	2.1	3.0
3rd Quarter 1987	0.9	1.1	1.1	2.6	2.8	3.9
4th Quarter 1987	1.0	2.0	1.5	2.7	3.1	5.0
1st Quarter 1988	–1.7	–2.4	0.8	1.6	2.3	4.8
2nd Quarter 1988	1.9	1.0	0.7	2.1	1.7	4.2

Notes: Annual percent change compares gross product in a given quarter to that of the same quarter of the prior year. All GSP data were revised.

Source: Gross State Product (GSP) and adjusted GSP (minus the contributions of the agriculture and mining industries) from Center for Business Research, College of Business, Arizona State University. Gross National Product (GNP) from U.S. Department of Commerce, Bureau of Economic Analysis.

Recovery Foreseen For Weak Phoenix Housing Market

Maricopa County's real estate market remains weak, with continuing concern about how long it will take to recover. However, the market is not dead, and there is no question that it will recover.

ECONOMIC CONDITIONS

The current economy is plagued by low net migration, declining job growth and high vacancy rates, at least partially the result of overbuilding by the construction industry. These three factors interact to compound the problem, as well as to increase bankruptcies and foreclosures, which are both at record levels.

Net migration during the past year has been lower than in any nonrecessionary year since the late 1960's, and significant improvement is not forecast for two or more years. In-migration is declining and out-migration is increasing slightly, due at least partially to better economic conditions in competing states. For the first time since the late 1960s, Arizona's economy is performing below the levels of surrounding states, as well as below the national average, leading to reduced net migration.

Net in-migration was estimated at only 5,000 during the third quarter. The past four quarters combine to form the lowest year since the late 1960s, excluding the troughs of the 1975 and 1982 recessions.

Seasonally adjusted job growth hit its lowest level since1982 during second quarter 1988. New job creation in Arizona during the year ending in August was only 1.4 percent versus 3.4 percent the prior year, dropping Arizona to 37th place among all states. September was even weaker, which will further lower the state's ranking.

Vacancy rates have also been at their highest levels ever. Vacancy rates for single-family homes hit an all-time high of 4 percent during the third quarter, when over 19,000 single-family homes were vacant, according to the recently released Phoenix Metropolitan Housing Study. The number of vacant homes during all three quarters of 1988 was nearly twice as high as the next-highest 8,500 in fourth quarter 1986.

The 15 percent apartment vacancy rate was less than its all-time high of 17 percent during the prior quarter, due to typical seasonal patterns, but higher than in any other third quarter. Rates in the urbanized areas ranged from 11 percent to 22 percent. Vacancy rates will probably remain high as construction is finished on the 4,700 units which have been permitted but are not completed.

Low migration and job growth join with the high vacancy rates to create a dilemma for the construction industry. Should firms continue building, attempting to make constructive use of their land and lead the competition, but contribute to continued high vacancy rates? Or should they cut back further on construction, allowing vacancy rates to fall, but laying off additional personnel in the short run?

HOME SALES AND PRICES

Third quarter home sales totaled 13,350 units, a decrease of 3 percent from second quarter 1988 and 13 percent from third quarter 1987. The median sales price of all homes sold increased only 1 percent from the prior quarter.

New home sales, especially townhouses and condominiums, have been declining for the past year. Only 100 new townhouses/condos were sold during the third quarter, continuing the significant decline of the past two years. The median price of new townhouses/condos purchased fell 12 percent, implying that mostly low-priced units were purchased. Resale townhouse/condo sales and prices remained relatively stable compared to the prior quarter.

New single-family homes have generally been following a trend of higher prices and lower sales volumes since second quarter 1987. This movement is slowing, however; new single-family sales fell only 5 percent during the third quarter and

TABLE 1
METROPOLITAN PHOENIX HOME SALES

	Single-Family			Townhouse/Condominium			
Median Sales Price	*Resale*	*New*	*Total*	*Resale*	*New*	*Total*	*Grand Total*
First Quarter 1987	$75,000	$92,050	$81,400	$63,000	$70,950	$66,000	$78,500
Second Quarter 1987	77,500	94,650	84,000	64,000	74,650	67,000	80,725
Third Quarter 1987	79,700	100,200	86,000	62,000	75,550	64,900	82,000
Fourth Quarter 1987	77,500	102,400	85,700	63,350	80,825	66,500	82,500
First Quarter 1988	76,500	103,450	84,000	63,000	71,900	64,825	79,900
Second Quarter 1988	77,000	98,900	83,825	61,500	78,950	64,000	80,000
Third Quarter 1988	78,900	102,500	85,000	62,000	69,450	62,500	80,900
Number of Sales							
First Quarter 1987	6,525	3,975	10,500	1,550	1,050	2,600	13,100
Second Quarter 1987	9,725	4,350	14,075	2,225	1,025	3,250	17,325
Third Quarter 1987	8,925	3,550	12,475	2,225	650	2,875	15,325
Fourth Quarter 1987	6,825	3,575	10,400	1,750	650	2,400	12,800
First Quarter 1988	6,075	2,150	8,225	1,800	275	1,875	10,125
Second Quarter 1988	8,200	3,200	12,000	1,950	325	2,300	13,700
Third Quarter 1988	8,225	3,025	11,250	2,025	100	2,125	13,375

Note: All numbers rounded to nearest 25; subcategories may not add to total due to rounding.

Source: Arizona Real Estate Center, College of Business, Arizona State University; from data supplied by Real Estate Evaluation Group, Chandler, Az.

prices have returned to the level of fourth quarter 1987.

FORECAST

Net migration and vacancy rates will play key roles in the recovery of the construction industry. However, construction activity typically leads in-migration by three to four quarters, and construction cannot increase significantly until either migration increases or vacancy rates decline. Migration, job growth, vacancy rates and construction all interact to boost each other when the economy is booming, but the current conditions are such that each holds the other back and makes recovery more difficult.

Continued slow migration combined with the high vacancy rates and subpar growth forecasts make it difficult to create a scenario in which the local economy, particularly the construction sector, will regain its prior strength during the next eighteen months. More likely scenarios project weak conditions in the construction sector for another two to three years.

The Arizona Real Estate Center expects approximately 14,000 single-family and 6,000 multifamily permits to be issued in 1989, resulting in a multifamily vacancy rate of approximately 12-13 percent by the end of the year.

– **Sharla Kivett,** *Research Analyst*
Arizona Real Estate Center

Housing Affordability Levels Off in Third Quarter

Affordability of Phoenix area single-family homes remained relatively high during third quarter 1988. Increases in mortgage interest rates and sales prices were almost offset by increases in household incomes, reducing affordability only slightly.

New home affordability fell two points from the prior quarter, performing considerably below the resale index level. At 92, the index for new homes was considerably above the long-term average of 79 from 1981-1988, and equal to the average of the prior 10 quarters.

At 119, the index for resale homes fell slightly from the level it held the prior two levels, but remained far above the level of 100 required for the median-income household to qualify for the median-priced home.

COMPONENT CHANGES

Home prices have been trending upward since 1981. Prices of new homes have increased 41 percent since first quarter 1981; resale home prices have increased 26 percent. The faster rise in new home prices has led to a larger spread between affordability levels of new and resale homes since 1981. The resale home index has increased from 68 during first quarter 1981 to the current level of 119, an increase of 75 percent. The index for new homes has increased from 59 to 92, an improvement of only 56 percent.

Interest rates have been considerably lower since 1986 than they had been during the first five years of the decade. Third quarter 1988's rate of 10.9 percent was only slightly higher than the average of 10.6 percent for the prior 10 quarters, but considerably below the 14.9 percent average from 1981-1985.

During second quarter 1988, a median-income household could afford a $94,025 home - considerably more than the $78,900 median-priced resale home, but less than the $102,500 median- priced new home.

The Phoenix affordability indexes continued to outperform the national indexes. The national new home index fell from 84 to 79 while the resale index fell from 104 to 102.

OUTLOOK

No dramatic changes in housing affordability are expected until at least the first part of 1989, when interest rates may once again reduce affordability levels. If predictions of interest rate increases after the presidential election are realized, affordability will suffer.

The national economy may have a larger impact in the future. If the national economy should enter a recession, which is uncertain at this point, the local economy would also be affected, impacting median incomes as well as interest rates and possibly home prices.

– **Sharla Kivett,** *Research Analyst*
Arizona Real Estate Center

TABLE 1
HOUSING AFFORDABILITY INDEXES
Metropolitan Phoenix; Single-family Only

			Resale Homes			New Homes		
	Median Gross Monthly Income	Effective Interest Rate	Median Sales Price	Monthly Housing Payment	Affordability Index	Median Sales Price	Monthly Housing Payment	Affordability Index
1st Qtr. 1987	$2,920	9.4%	$75,000	$630	131	$92,050	$770	106
2nd Qtr. 1987	2,970	10.6	77,500	710	116	94,050	870	95
3rd Qtr. 1987	3,010	10.8	79,700	750	113	100,200	940	90
4th Qtr. 1987	3,060	11.2	77,500	780	113	102,400	1,000	86
1st Qtr. 1988	$3,100	10.7%	$76,500	$710	122	$103,450	$960	90
2nd Qtr. 1988	3,140	10.8	77,000	720	121	98,900	930	94
3rd Qtr. 1988	3,170	10.9	78,900	740	119	102,500	970	92

Source: Arizona Real Estate Center, College of Business, Arizona State University. Interest rates are from the Federal Home Loan Bank Board News.

Government and Food Stores Most Common Basic Industries

The differing economic natures of Arizona's counties are evident in the lists of their industries which have a "basic" component. Basic industries bring in money from outside a geographic area by producing goods and services for export to tourists, seasonal residents and new residents as well as to markets outside the area. An industry is considered to have a basic component if its location quotient — the ratio of an industry's share of the local economy to that industry's national share — exceeds one. Growth of basic industries leads and determines an area's overall development, but basic industries are not necessarily the largest in an area.

Food store retailing and government are the most common industries with a basic component in Arizona's counties (see Table 1). Agriculture, mining, public utilities and government are basic activities primarily in the rural counties. Construction, real estate and manufacturing are more commonly basic in the state's metropolitan areas.

Apache County

Many of Apache County's basic industries are tied to natural resources: farming and ranching, mining of non-metallic minerals, manufacturing of lumber and wood products, and power generation. Heavy construction—largely of power plants—has a very high location quotient. As in most rural counties, government—particularly federal—is a basic activity, in part because of federal administration of Indian reservations.

Cochise County

Government—federal and military—is the county's most basic industry. Others are related to natural resources: farming and ranching, agricultural services, metal mining, power generation, and manufacturing of stone, clay and glass products. The only other industries with a location quotient greater than 1.0 are food store retail and communications.

Coconino County

Tourism is the foundation for many of this county's basic industries. Hotels and other lodging places has a very high location quotient. Most components of retail trade as well as auto repair, services and garages are basic. In addition, all subsectors of the construction industry are basic, as are public utilities and manufacturing of lumber and wood products. Both federal and state and local government are strongly basic.

Gila County

Mining and the related primary metals manufacturing are the main basic activities in Gila County. Government has only a small basic component while certain retail trade categories reflect a degree of tourism and second home development.

Graham County

This is a retail trade/services center for much of eastern Arizona and western New Mexico, with numerous subsectors in each major industry having a location quotient greater than 1.0. Agriculture is important to the county, reflected in the ratios for farming and ranching, agricultural services, and building materials/agricultural equipment retailing.

Greenlee County

Most industries in Greenlee County have very small location quotients. Other than mining, only public utilities and construction had ratios barely exceeding 1.0 in 1986.

La Paz County

Primary basic industries in La Paz County are farming and ranching and agricultural services, though the county serves as a retail trade center as well. Government and hotels and other lodging places also have location quotients exceeding 1.0.

Maricopa County

The Phoenix metropolitan area has a long list of basic industries, though none have particularly high location quotients. The list includes each of the construction subsectors; most of the retail trade categories; a number of the services subsectors, including legal services and business services (the only county to export these services); each of the finance, insurance and real estate components; and durables manufacturing of electric and electronic equipment, transportation equipment other than motor vehicles, and instruments. However, government, mining, public utilities and farming are *not* basic industries.

Mohave County

Mohave has more industries with a basic component than any of the other rural counties. The highest location quotients are in metal mining and tourism-related retail trade and services subsectors. Laughlin, Nevada, with gambling casinos but little else, contributes to the tourism-related activities. Other basic industries include construction, three manufacturing subsectors, railroad transportation, public utilities, insurance agents, real estate, and state and local government.

TABLE 1
COMMON BASIC INDUSTRIES IN ARIZONA'S COUNTIES

Industry	Number[1]
Food store retailing	13*
Total government	13*
State and local government	12*
Federal civilian government	11
Automotive dealers and service stations	10*
Hotels and other lodging places	10*
Farming	9
Total retail trade	8*
Construction	8*
Public utilities	8*
Building materials/agricultural equipment retailing	8*
Agricultural services	7*
Mining	7*
Eating and drinking places	7*
Auto repair, services and garages	7*
Miscellaneous repair services	7*

[1] Number of counties in which location quotient exceeds 1.0
* Indicates the industry has a basic component at the state level.

Source: Center for Business Research, College of Business, Arizona State University from earnings by place of work data produced by the U.S. Department of Commerce.

Navajo County

Mining, farming and ranching, forestry, manufacturing of lumber and wood products and public utilities all have basic components. Navajo County receives enough tourism to put some retail trade sectors and hotels and other lodging places into the basic category. Transportation, communication, and federal and state and local government also are basic.

Pima County

The Tucson area's basic industries generally resemble those of the Phoenix area. However, the FIRE industries are not basic, but government and metal mining are basic. Manufacturing of non-electric machinery replaces electric and electronic equipment on the list. In addition, a greater number of services subsectors are basic, making it the only county where the entire services industry is basic.

Pinal County

The old mainstays of the Arizona economy, mining and agriculture, are basic to Pinal's economy. The only other industries with location quotients exceeding one are food store retailing, state and local government, and manufacturing of food products—the only county in which this is a basic industry.

Santa Cruz County

Santa Cruz's economy revolves around trade with Mexico, both on the wholesale and retail level. Catering to non-residents, some of its retail trade subsector location quotients are very high. Transportation (related to trade), government, and hotels and other lodging places also have ratios exceeding one.

Yavapai County

Several subsectors of services and nearly all those of trade are among this county's basic industries. Government, agriculture, mining and construction also have location quotients exceeding one.

Yuma County

Farming, agricultural services, military, and railroad transportation have high location quotients. The other government subsectors are basic as well. Due in part to seasonal residents, a few retail trade and services subsectors are also basic.

– Tom R. Rex
Research Manager

Per Capita Gross Products Vary By County

Per capita Gross County Product (GCP) in 1986 ranged by a factor of more than three between Greenlee County's figure of $20,341 and Graham County's $6,296. The only other county to surpass the state average of $15,880 was Maricopa at $18,884 (see Figure I). A large gap separated the urban counties of Maricopa and Pima.

One source of this variation is the labor force participation rate, or more generally, the number of dependents per working person. A high proportion of retirees accounts in part for low per capita GCPs in Yavapai and Mohave counties. Apache County's figure is lowered by a large number of youths and high unemployment.

The industrial mix plays a role as well. Counties with a large proportion of jobs in a high-paying industry —e.g., mining in Greenlee County — have higher per capita GCPs. Geographic differences in wage levels also contribute to deviations in per capita GCP.

Growth rates of GCP per person also vary widely. Between 1970 and 1986, statewide inflation-adjusted growth was 31 percent. Navajo County's 77 percent and Greenlee County's 56 percent surpassed considerably the growth rates of Yuma/La Paz and Maricopa counties (see Figure II) and a big gap occurred between Maricopa and Pima counties.

– Tom R. Rex
Research Manager

FIGURE I
GROSS COUNTY PRODUCT PER CAPITA
Current Dollars, 1986

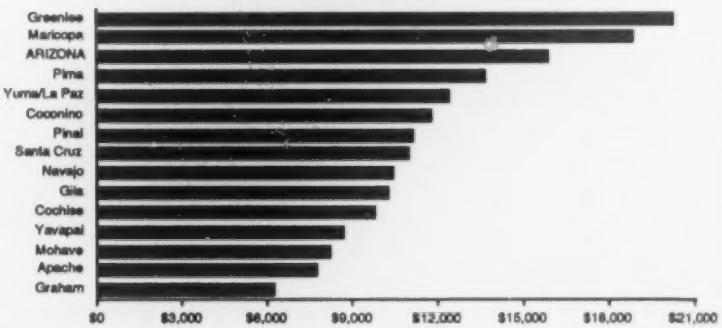
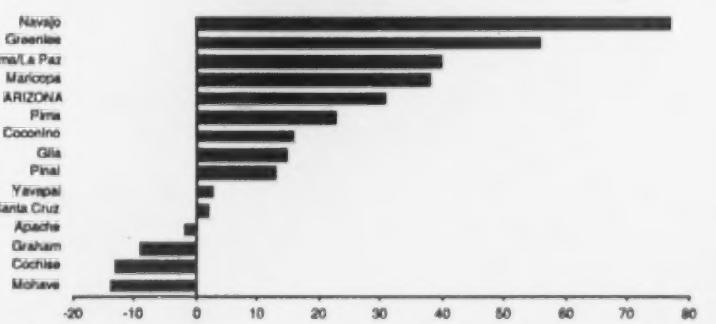


FIGURE II
PERCENT CHANGE IN GROSS COUNTY PRODUCT PER CAPITA
Real Dollars, 1970-1986



Source (Figures I and II): Center for Business Research, College of Business, Arizona State University.

Coincident Indexes Flat in August

Arizona's economy stabilized in August after four successive months in which the state's coincident economic indexes generally declined. Preliminary data for September suggest that the state's economy expanded, though at a much below average rate.

The coincident economic index for the Phoenix area was unchanged in August at 147.8 (1982=100). In rural Arizona, the index rose less than 0.1 percent to 128.0. The Tucson area economy registered slight growth, its index rising 0.2 percent to 137.1, but the composite statewide measure was flat at 142.5.

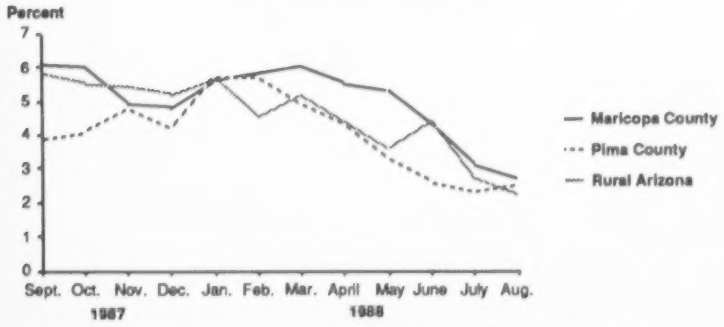
A sharp rise in the unemployment rate had the largest negative impact on each area's coincident index in August. Offsetting this were gains in the value of commercial building permits — which recovered most of July's big loss — and in employment. Though the Tucson area's retail sales fell considerably — the fourth decline in five months — its employment-unemployment situation was the best of the three areas, resulting in its strongest overall gain. Retail sales were flat in the Phoenix area, but rose in rural Arizona to the second-highest monthly value on record.

Between March, when the coincident indexes peaked, and August, the cumulative decline was 2.6 percent in non-urban Arizona, 1.3 percent in Pima County and 0.1 percent in Maricopa County. The annual growth rate in August was down to approximately 2.5 percent in each area (see Figure I).

While Maricopa County suffered the least during this economic slowdown, its economy appears to have declined slightly in September. In contrast, Pima County's economy probably expanded at a rate similar to that in August while rural Arizona may have experienced a slightly larger gain.

The coincident indexes continue, with a few months lag, to follow changes in the Arizona leading index. A continuance of this pattern would mean some additional improvement in the economy's growth rate during the fall, but no evidence suggests that the growth rate will return to near-average levels.

FIGURE I
COINCIDENT ECONOMIC INDEXES
Year-to-Year Percent Changes



Source: Center for Business Research, College of Business, Arizona State University.

– Tom R. Rex
Research Manager

Purchasing Indicators Growth is Modest in October

The Arizona economy showed signs of further softening in October. Employment saw no growth for the first time in the past eighteen months. While all indicators except employment were positive, new orders received and production experienced only moderate growth. However, Arizona firms did add to inventory, following September's reduction, and the rate of inflation has not intensified.

Prices paid for purchased items continued to tilt upward in October, but at a slightly lower rate than in September and the lowest since last March. Lower energy prices continue to moderate the inflation pressures. However, further interest rate increases may be necessary before the end of the year to hold inflation in check.

TABLE 1
OCTOBER PURCHASING SURVEY

	Percent of Purchasing Managers Indicating Each Response (October compared to September)		
Key Indicators:	*Higher*	*Same*	*Lower*
Prices paid for major commodities	47	51	2
Delivery time from vendors	34	55	11
Purchased materials inventory level	28	51	21
New orders received	36	40	24
Production	36	48	16
Employment	22	56	22
Purchases	42	36	22

Source: Purchasing Management Association of Arizona, Purchasing Management Association of Southern Arizona, and the Northern Arizona Group.

While the caution light is on, the Arizona economy can be expected to finish out the year with a record of consistent, albeit moderate, growth.

– Harold Fearon
Dr. Fearon is the National Association of Purchasing Management Professor in the ASU College of Business.

Arizona Leading Index Slides in September

The Arizona Index of Leading Economic Indicators slipped to 110.6 in September, a decline of 0.7 percent from the August level of 111.4 (1977=100). The decline came after six consecutive months of small but positive advances (Figure 1).

Only one of the 10 components of the index registered a positive change in September. That component was Arizona production as reported in a survey of purchasing managers.

The greatest negative influence came from a drop in seasonally adjusted residential building permits for September. Changes in the national money supply, sensitive prices, and new orders also exerted strong downward pulls on the index.

ANALYSIS

The national Composite Index of Leading Indicators maintained by the U.S. Commerce Department's Bureau of Economic Analysis also declined in September, by 0.5 percent. Components contributing to the decline in the national index were similar to those influencing the Arizona index, including orders for plant and equipment, building permits, sensitive materials prices, and the money supply.

However, on the national level, several key index components moved in a positive direction, including the manufacturing workweek and vendor performance reports of slower delivery times. Both of these components dipped in the Arizona index.

As did the Arizona index, the national index dropped after the stock market turbulence of the fall of 1987, then resumed growth beginning in the first part of 1988. But while the national index gained about 1.8 percentage points since its post-crash low, the Arizona index is now only 0.5 percentage points higher than its December 1987 low.

OUTLOOK

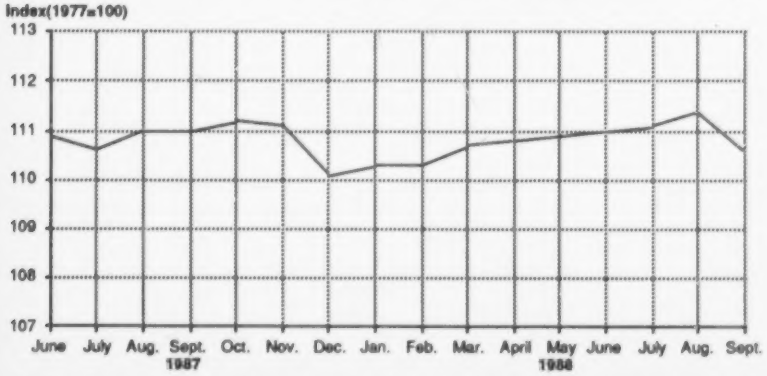
The national economy continues to record solid growth in output and employment. Unemployment rates are low and consumer expectations are at a high level.

The Arizona economy, in contrast, seems destined to end the year on a note of sluggish growth. The boom in export products and capital equipment spending that has fueled the national expansion for the past few quarters has not brought significant benefits to the local economy.

The September decline in the leading index reinforces the likelihood that 1989 will be a year of substandard economic performance for Arizona.

– Lee R. McPheters, *Director Economic Outlook Center*

FIGURE I
ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Economic Outlook Center, College of Business, Arizona State University; sponsored by Citibank (Arizona).

TABLE 1
NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

	Net Contribution*			
	June	July	Aug.	Sept.
Delivery Time**	–.13	.13	.02	–.08
Inventory Levels**	–.08	.17	–.06	–.06
New Orders**	.01	.08	–.02	–.09
Production**	.03	.01	–.08	.01
Employment**	–.05	.05	.05	–.03
Residential Building Permits	.03	–.23	.39	–.29
Unemployment Insurance Claims	.19	.00	.00	.00
Average Workweek, Manufacturing	–.09	–.05	.05	–.02
Money Supply	.06	–.06	–.10	–.10
Change in Sensitive Materials Prices	.03	.02	.01	–.07
OVERALL INDEX CHANGE (%)	.01	.13	.27	–.73

*The net contribution of each component is calculated by multiplying the monthly percent change in its index by its relative importance.

**Based on indicators from the purchasing management associations of Arizona and southern Arizona.

Source: Economic Outlook Center, College of Business, Arizona State University; sponsored by Citibank (Arizona).

The Arizona leading index is based on 10 economic indicators, combined and weighted to project the pace of economic activity several months ahead. Five of the components come from a monthly survey of Arizona purchasing managers conducted by Dr. Harold Fearon. The Arizona Index of Leading Economic Indicators is sponsored by Citibank (Arizona).

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT (In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	2nd Qtr.	59.221	2.4	6.0	NA	NA
Arizona - 1982 Dollars	2nd Qtr.	47.827	1.9	2.1	NA	NA
COINCIDENT ECONOMIC INDEXES (1982 = 100)						
Arizona	August	142.8	0.0	2.5	NA	NA
Metropolitan Phoenix	August	147.8	0.0	2.7	NA	NA
Metropolitan Tucson	August	137.1	0.1	2.5	NA	NA
Non-urban Arizona	August	128.0	0.1	2.2	NA	NA
CONSUMER PRICE INDEX (1982-84 = 100)						
Metropolitan Phoenix	3rd Qtr.	128.9	0.8	4.1	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	Sept.	110.6	-0.7	-0.4	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	August	457,991	[illegible]	36	2,457,980	-8
Pima County	August	30,742	-6	-24	238,841	-17
Balance of State	August	50,624	-3	11	459,586	9
Arizona	August	539,057	36	29	3,253,107	-7
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	August	2,284	47	3	16,147	-18
Pima County	August	341	49	-16	3,885	-14
Balance of State	August	641	2	-17	8,322	-12
Arizona	August	3,266	85	-9	28,354	-15
HOME SALES						
Maricopa County - Number	Sept.	4,400	-15	1	38,875	-19
Maricopa County - Median Price	Sept.	82,400	2	-1	80,300	0
HOUSING AFFORDABILITY INDEXES						
Metropolitan Phoenix - New Homes	3rd Qtr.	92	-2.1	2.2	NA	NA
Metropolitan Phoenix - Resale Homes	3rd Qtr.	119	-1.7	5.3	NA	NA
MORTGAGE INTEREST RATES (Conventional, 30-year, Fixed-rate)						
Maricopa County	October	10.8	-1.0	-8.0	NA	NA
POPULATION ESTIMATES (In Thousands)						
Maricopa County	3rd Qtr.	2,024	0.5	2.0	NA	NA
Arizona	3rd Qtr.	3,492	0.5	1.9	NA	NA
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	Sept.	3,910	-10.1	16.4	33,594	12.6

NA = Not Applicable

Source: Center for Business Research, College of Business, Arizona State University

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